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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/727,804	12/04/2003	Richard H. Dee	2003-072-TAP	6825
51344 7590 12/08/2008 BROOKS KUSHMAN P.C. / SUN / STK 1000 TOWN CENTER, TWENTY-SECOND FLOOR SOUTHFIELD, MI 48075-1238				
EXAMINER				
RENNER, CRAIG A				
ART UNIT		PAPER NUMBER		
2627				
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12/08/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/727,804

Applicant(s)

DEE, RICHARD H.

Examiner

Craig A. Renner

Art Unit

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 September 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 10-20 is/are pending in the application.
4a) Of the above claim(s) 4, 13 and 20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-8, 10-12 and 14-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 18 September 2008 has been entered.

Election/Restrictions

2. Claim 20 is withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to one or more non-elected inventions/species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 09 August 2006.
3. Claims 4 and 13 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to one or more non-elected inventions/species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 14 January 2008.

Drawings

4. The drawings received on 04 December 2003 are acceptable.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-3, 5-8 and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a. In line 4 of claim 1, it is indefinite as to what language is intended to follow "such that," i.e., " heads such that; and" (emphasis added).

b. In line 8 of claim 1, it is indefinite as to what element is "with" the "single storage band," i.e., "a single storage band with a such that" (emphasis added).

c. In line 2 of claim 19, "the position control unit" is indefinite because it lacks clear and/or positive antecedent basis.

d. Claims 2-3 and 5-8 inherit the indefiniteness associated with independent claim 1 and stand rejected as well.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-3, 5-8, 10-12 and 14-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Barndt (US 6,275,350).

With respect to claims 1-3 and 5-8, Barndt (US 6,275,350) teaches a data storage system comprising a plurality of read/write heads (34, 36, 38, 40, 42, 44 and 46); a plurality of data channels (includes 48 and 62, for instance), a subset (48 and 62) of the plurality of data channels coupled to a read/write head (34) of the plurality of read/write heads (as shown in FIG. 5, for instance); and a storage medium (28) including a plurality of storage bands (each 30), wherein each read/write head is uniquely associated with a single storage band (as shown in FIG. 5, for instance) such that the read/write heads are alignable with a single mode of operation (as shown in FIG. 5, for instance), and access at least the subset of the plurality of data channels (as shown in FIG. 5, for instance) [as per claim 1]; wherein the data storage system comprises a magnetic tape drive (12, shown in FIG. 3, for instance) [as per claim 2]; wherein the plurality of read/write heads comprises at least one read/write head (34, for instance) of a read/write configuration (62/48, for instance, dependent upon viewer perspective) and at least one read/write head (36, for instance) of a write/read configuration (50/64, for instance, dependent upon viewer perspective) [as per claim 3]; wherein at least one read/write head (34, for instance) of the plurality of read/write heads includes a read/write element (62, i.e., a read element) and a write/read element (48, i.e., a write element) [as per claim 5]; wherein a number (i.e., seven, for instance) of

the plurality of read/write heads is equal to a number (i.e., seven, for instance) of the plurality of storage bands [as per claim 6]; wherein a relationship between the subset of data channels and the plurality of read/write heads is defined as M/N , whereby M/N comprises a number (i.e., two, for instance) of data channels per read/write head [as per claim 7]; and wherein a relationship between the subset of data channels, the plurality of read/write heads, and the plurality of storage bands is defined as M/N , whereby M comprises a total number (i.e., fourteen) of data channels, and N comprises at least one of a total number of the plurality of read/write heads and a total number of the plurality of storage bands (i.e., a total number of the plurality of read/write heads equals seven) [as per claim 8].

With respect to claims 10-12 and 14-19, Barndt (US 6,275,350) teaches a read/write head assembly (FIG. 5, for instance) comprising a plurality of read/write heads (34, 36, 38, 40, 42, 44 and 46), each read/write head of the plurality of read/write heads operable to read or write data from or to a corresponding storage band (30) of a plurality of storage bands (each 30) arranged on a storage medium (28) with each read/write head being uniquely associated with a single storage band (as shown in FIG. 5, for instance); and a plurality of data channels (includes 48 and 62, for instance), a subset (48 and 62) of the plurality of data channels coupled to a read/write head (34) of the plurality of read/write heads (as shown in FIG. 5, for instance) [as per claim 10]; wherein the storage medium comprises a magnetic tape (28) [as per claim 11]; wherein the plurality of read/write heads comprises at least one read/write head (34, for instance) of a read/write configuration (62/48, for instance, dependent upon viewer

perspective) and at least one read/write head (36, for instance) of a write/read configuration (50/64, for instance, dependent upon viewer perspective) [as per claim 12]; wherein at least one read/write head (34, for instance) of the plurality of read/write heads includes a read/write element (62, i.e., a read element) and a write/read element (48, i.e., a write element) [as per claim 14]; wherein the subset of the plurality of data channels comprises a read channel (62) and a write channel (48) [as per claim 15]; wherein a number (i.e., seven, for instance) of the plurality of read/write heads is equal to a number (i.e., seven, for instance) of the plurality of storage bands [as per claim 16]; wherein a relationship between the subset of data channels and the plurality of read/write heads is defined as M/N , whereby M/N comprises a number (i.e., two, for instance) of data channels per read/write head [as per claim 17]; wherein a relationship between the subset of data channels, the plurality of read/write heads, and the plurality of storage bands is defined as M/N , whereby M comprises a total number (i.e., fourteen) of data channels, and N comprises at least one of a total number of the plurality of read/write heads and a total number of the plurality of storage bands (i.e., a total number of the plurality of read/write heads equals seven) [as per claim 18]; and wherein a position control unit (includes 14 and 32, for instance) comprises an actuation unit (includes 32, for instance) operable to align at least one read/write head of the plurality of read/write heads with the corresponding storage band of the plurality of storage bands with a fine positioning operation [as per claim 19].

Pertinent Prior Art

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. This includes Kashimoto (US 3,824,622), which teaches a read/write head assembly (19) comprising a plurality of read/write heads (10, 12, 14 and 16), each read/write head of the plurality of read/write heads operable to read or write data from or to a corresponding storage band of a plurality of storage bands arranged on a storage medium with each read/write head being uniquely associated with a single storage band; and a plurality of data channels (includes 28 and 30, for instance), a subset (28 and 30) of the plurality of data channels coupled to a read/write head of the plurality of read/write heads.

Response to Arguments

10. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Craig A. Renner whose telephone number is (571) 272-7580. The examiner can normally be reached on Tuesday-Friday 9:00 AM - 7:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, A. L. Wellington can be reached on (571) 272-4483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Craig A. Renner/
Primary Examiner, Art Unit 2627

CAR